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Title: Large Game Distribution Camera Study at Los Alamos National Laboratory

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The unique habitats at the Laboratory support a diverse community of wildlife. The habitat types that include Pinon Juniper, Ponderosa Pine, and Mixed-conifer forests each provide different resources important for a variety of species. Wildlife monitoring for large game animals can be challenging because they avoid interactions with humans, and prefer undeveloped areas. This study was conducted to analyze the distribution of predators and other game animals seasonally across the Laboratory. This research informs decisions regarding wildlife management recommendations for conservation and protection. This study utilized game cameras to remotely monitor wildlife. As camera technology has advanced, game cameras have become adequate for documenting individuals, and are commonly used in wildlife studies on predation, abundance, occupancy, diversity, and endangered species detection. Twenty cameras were placed across the LANL landscape using a modified systematic sampling design. They were deployed in February 2018 and retrieved in January 2019, thus each camera sampled for one full year. All images were reviewed and the species, number, age, and sex of all animals in the photo were recorded. Here we present data for the most abundant species encountered: deer, elk, coyote, bear, bobcat, mountain lion, and fox respectively. The data were summarized by species and season. Future work will include occupancy modelling for each species. This will allow the development of heat maps showing species distributions across the Laboratory.